

Abstract

In this vehicle, the diamagnetic fields principles are applied to obtain a hovering and propulsion effect which makes low cost, friction free and zero pollutant emissions transport media. This is done using a special combination of electromagnetic generators and the natural diamagnetic susceptibility present in all elements. The physical effect of this phenomenon is an air gap between the surface and the vehicle. The height of levitation has a direct relationship with the material used as floor surface; since all materials have different diamagnetic susceptibility factors. Also, the power on the diamagnetic field generator is a key for the levitation and propulsion effect. All these factors make this prototype vehicle an easy maneuverable one, since there are almost no inertial forces present in the system.

Introduction:

A diamagnetic force can be used to produce vehicular motion, instead of direct mechanical, hydraulic, or pneumatic force. Diamagnetic forces are formed, for example; by the induction of current through a coil or solenoid, or are already present in a permanent magnet. The application used is the diamagnetism, which is not a very common electromagnetic principle. It is well known that when a piece of iron is in presence of an electromagnetic field, an attraction effect will occur between them, this is due to the natural atomic orientation or polarization of the iron atoms. This phenomenon is better known as Ferromagnetism.

Diamagnetism can be understood as the opposite case of ferromagnetism; hence having an element that is in presence of an electromagnetic field, the atoms will repel or move away from the electromagnetic field source. Now, applying this concept to a vehicular system, a reliable levitation transport media results. Using a cost efficient diamagnetic element as "running" surface and specially designed electromagnetic generators a vehicle can levitate from the ground and move with almost no friction. The whole concept is to have a special composite surface to run the vehicle instead of regular asphalt roads. This transport media runs on electricity, which could be obtained from the sun, solar cells and high efficiency batteries. The experimental top speed of the system is 560km/hr or 348mi/hr; these results were obtained from previous experiments done with similar electromagnetic transport devices, such as Germany's Maglev Transrapid train. The vehicle's safe running speed is 144km/hr or 90 mph. The system maintenance is non-complex due to the simplicity and small quantity of parts. The height of levitation for this scale prototype is 11cm and the max load supported is 1.5 times the vehicles weight, it uses 15amps AC and 120V. There is no need of lubricants or oil in the system, since there are no rolling parts or internal combustion engine.

Pollution

As my invention runs on electrical energy, there is no air pollution along the way. The diamagnetic vehicle has contact free support, guidance, braking and propulsion system, thereby eliminating the sound of wheels and engine noise. Since the only sound is caused